[24Y] Note that there are 9 cases, 3 for the LHS and 3 for the RHS. We concord that ∞ , $-\infty$ are symbols and not elements of X: if X has a maximum m then the intervals are preferably written as $(x, \infty) = (x, m]$ and $[x, \infty) = [x, m]$; similarly if X has a minimum.